Our Science Vision

Nurturing the next generation of scientists to make the world a better place.

Principles of Science at Avanti Court Primary School

Science is great at Avanti Court when:

- **it is fun, rich and inspiring.**
- **it is enquiry-based, which fosters pupils' curiosity.**
- **it encourages independent learning and thinking.**
- **resources are purposeful to engage all learners.**
- **children develop a sense of curiosity, awe and wonder for the world around them.**
- **when learning takes place in and out of the classroom.**
- **it gives children the opportunity to acquire knowledge and apply it to make the world a better place.**

Newsletter
Date 31.03.21,
Issue 2

AVANTI COURT PRIMARY SCHOOL

Science at Avanti Court

Developing and nurturing our pupils' curiosity

"I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary whilst the great ocean of truth lay all undiscovered before me." —Isaac Newton

Being "scientific" involves being curious, asking how things happen, and learning how to find the answers. Curiosity is natural to children, but they need help understanding of how to make sense of what they see. All we need is a willingness to observe and learn with them, and above all, to make an effort and take the time to nurture their natural curiosity.

Science is a body of knowledge built up through questioning, problem solving, investigations and the testing of ideas. Science is also a practical way of finding reliable answers to questions we may ask about the world around us.

Inspiring our students to be future scientists

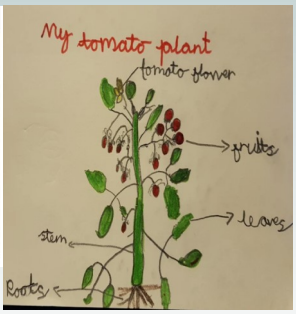
Our school endeavours in developing children's ideas and ways of working that enable them to make sense of the world in which they live. This is achieved through conducting different types of enquiry, using and applying, working scientifically and communicating themselves clearly through the embedding and application of high level vocabulary.

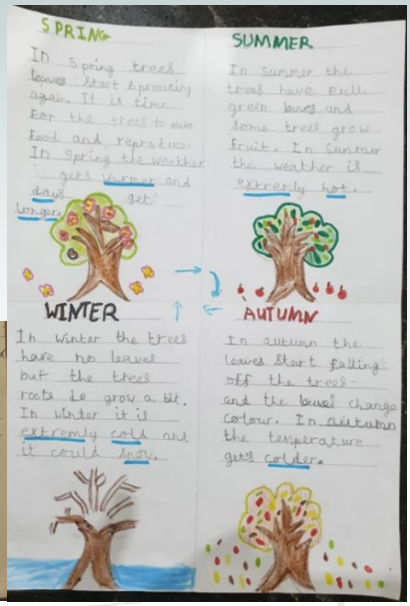
At Avanti Court, we promote scientific thinking by asking questions. As children answer questions, they learn the basic science skills of observing carefully, learning names of objects and processes and developing the ability to compare things. Most importantly, questions encourage communication and children's responses provide a window into what they are thinking and learning, making it possible to correct misconceptions or extend their learning.

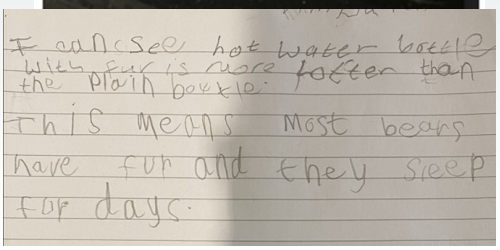
INSIDE THIS ISSUE

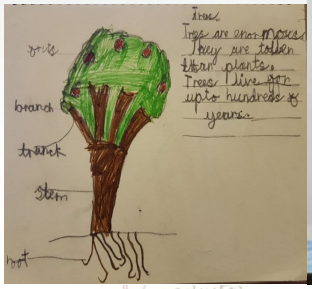
REMOTE LEARNING SCIENCE SNAPSHOTS

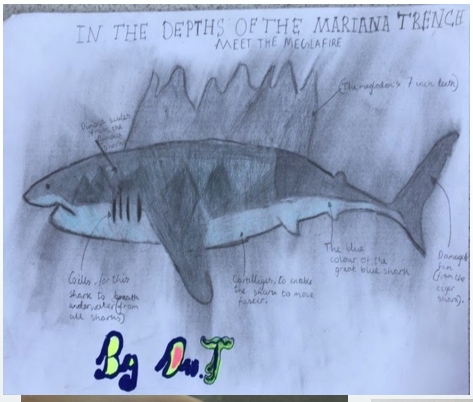
We are very proud of our pupils' resilience and engagement in science during the period of remote learning. Pupils across all age groups have shown their working scientifically skills in various ways and have conducted a range of scientific enquiries. Nursery children have explored textures through baking while Reception children carried out experiments at home to learn more about hibernation, exploring properties of ice and how fur helps to keep things warm. Year 1 have carried out observations of plants and trees observing how trees change during the different seasons. In other year groups, the science learning was enriched by activities such as observing the water movement in celery stalks (Year 3); researching about electrical circuits, insulators and conductors (Year 4); investigating forces (Year 5); creating a new marine species and making 'blood' with orange juice, red jelly and other ingredients (Year 6). Thank you to all the parents who have worked so hard to support children with their home learning.

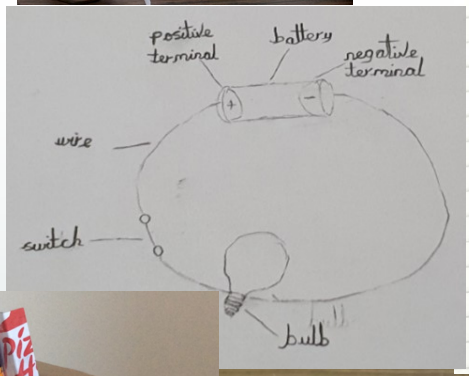


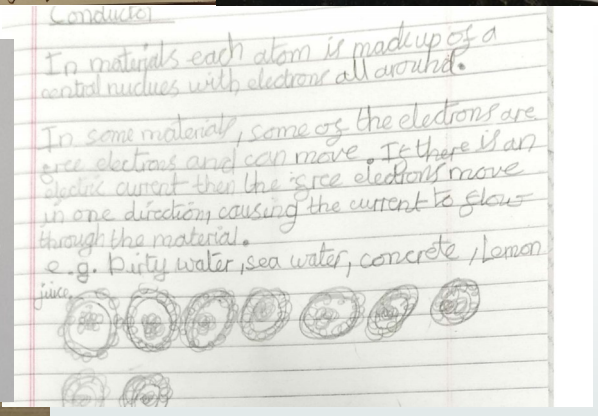


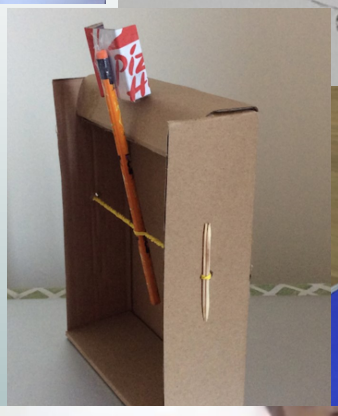


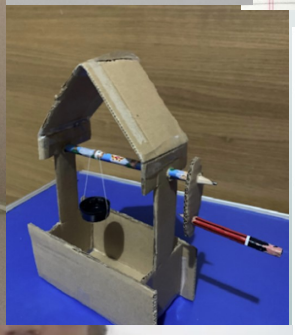


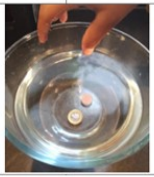
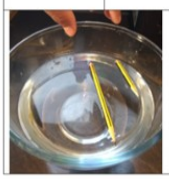
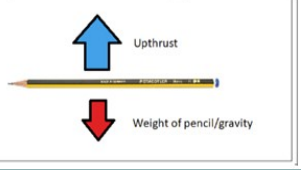










Object	Prediction- Will it float or sink?	Explanation- say why you think this	Were you correct?
Coin	I predict it will sink.	I think this because the density of the coin is greater than the density of the water.	I was correct because the gravitational force was greater than the upthrust.
			
Pencil	I predict it will float.	I think this because the density of the pencil is less than the density of the water.	I was correct because the gravitational force was less than the upthrust.
			

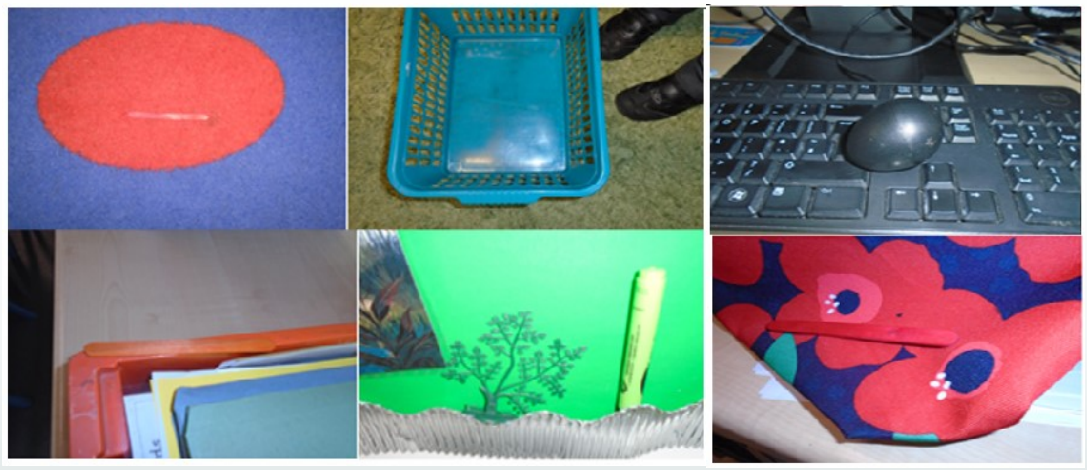
Science Day March 2021

All pupils and staff came together on the 12th March 2021 to celebrate Science Day. The day was packed with engaging, curiosity based science activities. Children also learnt about a significant scientists from whom they could get inspiration from.

EYFS EXPLOSIVE EXPERIMENTS

Children in Nursery and Reception carried out experiments using bicarbonate soda and vinegar!
Miss Sahota said, "Children were very engaged and enjoyed taking part in the activities. They made careful observations and reported back what they observed like true scientists using scientific language!"

YEAR 1 CAMOUFLAGE—CAN YOU SEE ME?



Year 1 pupils had fun learning about animals in their natural world and how camouflage is important to them. They enjoyed finding the best place to 'hide' their objects in plain sight! Children also took on the challenge to colour their own animals to make them camouflage in different backgrounds provided.

Sri said, "Camouflage means a way of hiding something by covering or colouring it so that it looks like its surroundings so its harder for their prey to see them. Animals use camouflage to blend into their environments."

Eshaan said, "Camouflage is used by animals as a way to disguise themselves from predators. It is also used by predators to blend themselves as they stalk their prey."

Science Day continued

Year 2—Can you guess what it is?

YEAR 2—USING OUR SENSES

Pupils in Year 2 had their share of science fun by engaging in activities that involved the use of their senses: smell, hearing and touch.

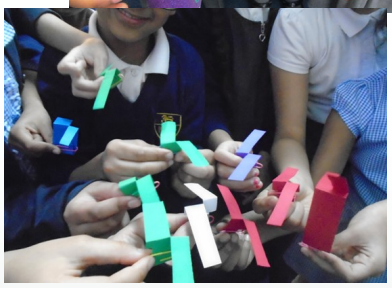
Not only did the children have to distinguish between the various familiar smells of lavender, thyme, vinegar and coffee but they also had to use their sense of touch to identify objects. Children were able to use scientific key vocabulary to describe the observations they made.

YEAR 3 OUR AMAZING KALEIDOSCOPES AND HELICOPTERS

In Year 3, pupils made either a kaleidoscope or a paper helicopter. Both activities provided challenge through discussion and scientific thinking.

Atiksh found assembling the different parts of the kaleidoscope a little tricky. He said, "It was hard to get the triangular prism inside the tube. I decided to try making another kaleidoscope at home and it worked."

Children, who did the paper helicopter activity, made changes to their designs for optimum twists!



What make these twist faster?

The wonders of light reflection

Year 4 creating rainbow colours

Year 4— Children exploring if rainbow colours can be blended to make white again

YEAR 4 - LIGHT DISPERSION

Pupils were able to create rainbow colours using old CDs. They explored and discussed why this happened.

They also investigated if these rainbow colours could be mixed to create the colour white. The fidgets spinners allowed the children to spin a rainbow colour wheel at full speed and observe what happened to the colours.

More science day news

YEAR 5— FORCES—BUBBLY FUN

Year 5 pupils have been busy investigating the effects of opposing forces such as gravity, up-thrust and air resistance on soap bubbles to consolidate and enrich their learning. On discussing how opposing forces can sometimes be in balance, Surya commented, “I thought that the wind was the only force on the bubble. Is that the reason why bubbles stay steady in the air when the forces are balanced?”

This activity proved very successful as it ignited curiosity.

Year 5 investigating the forces acting on soap bubbles

Year 6— Space, asteroids and meteors

And finally, our Year 6 pupils had fun learning about Space, planets, comets, asteroids and meteoroids.

Pupils had the chance to investigate what affects the size of meteor craters. Children planned and carried out their own investigations, using different rocks and marbles, dropping them from different heights. They recorded their findings and conclusions.

Year 6 investigate the creation of meteor craters

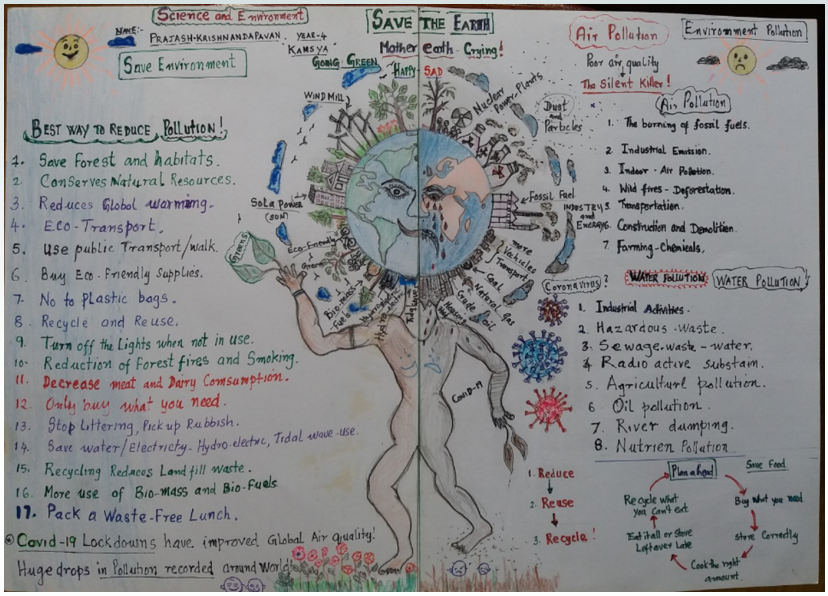
SCIENCE POSTER COMPETITION

The science poster competition was launched during British Science Week (5th - 14th March 2021). The Poster competition was open to all year groups from Nursery to Year 6 and the three different themes that were proposed were: Science and the Environment; Science and Food; and Science and Sports.

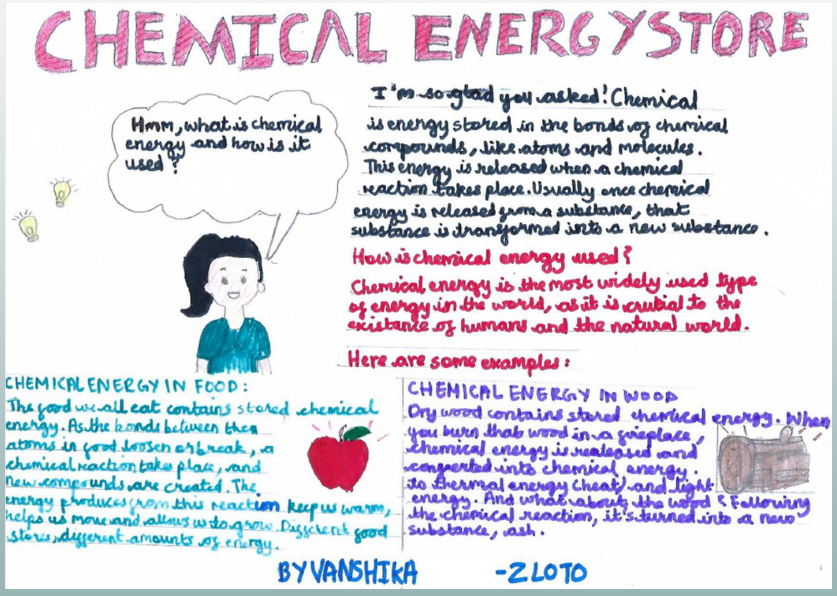
There were so many fabulous entries for the poster competition demonstrating the creativity of both pupils and parents, which made it a very difficult task to choose the winners!

The winning entries are presented below. Congratulations to our winners! We also send our warmest congratulations and thanks to all participants. We are very proud of you all.

EYFS winner—Manraj (Nursery)



Lower KS2 winner—Prajash (Year 4)



Upper KS2 winner—Vanshika (Year 6)

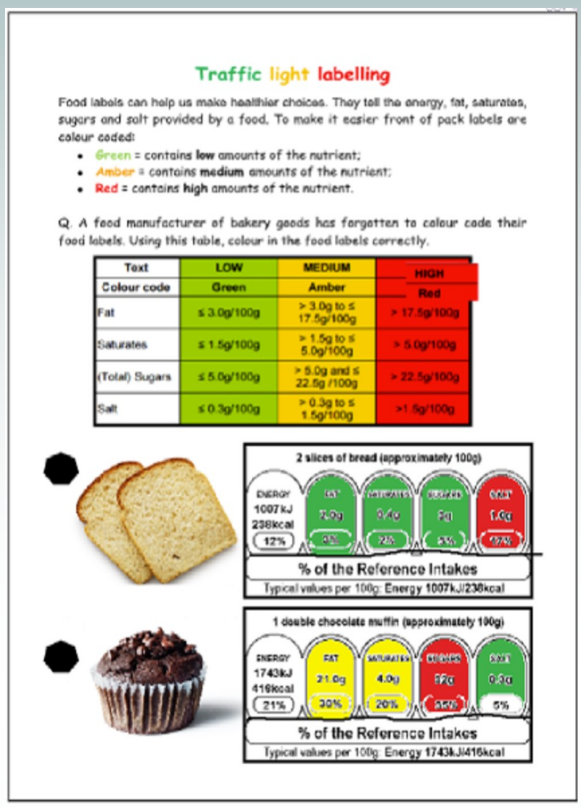
KS1 winner—Eshaan (Year 1)

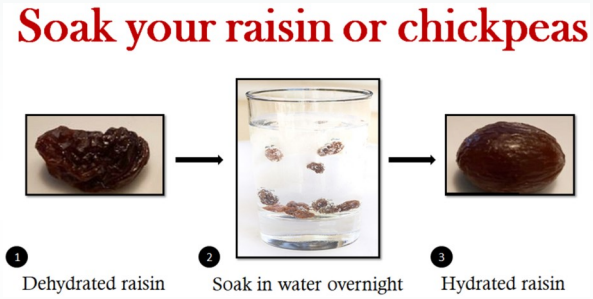
WIDER OPPORTUNITES AT AVANTI COURT

At Avanti, we believe in enriching our pupils' science learning by linking with other organisations. In Spring term, we were able to collaborate with Nutritionist, Arpita Jain and Orthodontist Dr Asma Keshtgar, both of whom delivered inspiring workshops to our pupils.

Nutrition sessions by Arpita Jain

Children in Reception, Year 2 and Year 5 have worked with Ms Jain remotely throughout the Spring term learning all about good nutrition. These workshops not only enhanced pupils' scientific knowledge about balanced diets, but also promoted a healthy lifestyle. Sessions sparked many interesting discussions. Ansh, from Year 2, shared how we can eat the stem of a plant as well. Another Year 2 child, Adviti, also added that too much of anything can make you sick. The impact of the nutrition sessions has been hugely positive and our pupils have thoroughly enjoyed them.

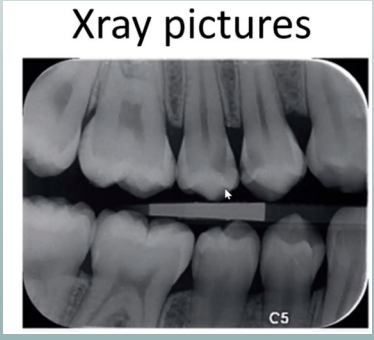




Some examples of pupils' work from the nutrition workshop

Meet a dentist session by Dr Asma Keshtgar

Mrs Munshi organised for Dr Keshtgar to remotely visit pupils in Year 4, who have been learning about the digestive system. Having a real orthodontist live from a London hospital in their classroom created an awesome buzz. Children were fully engaged with Dr Keshtgar and had many questions to ask. They really impressed our guest speaker with their challenging questions and answers. Some of the questions were: 'How do they make toothpaste healthy?'; 'What is fluoride?' and 'How do our teeth wobble and fall out?' One child from Bronze class correctly answered the last question by saying: 'Our permanent teeth grow and push the milk teeth out.' Below are the X-Ray pictures, shared by Dr Keshtgar, which made it an even better session!

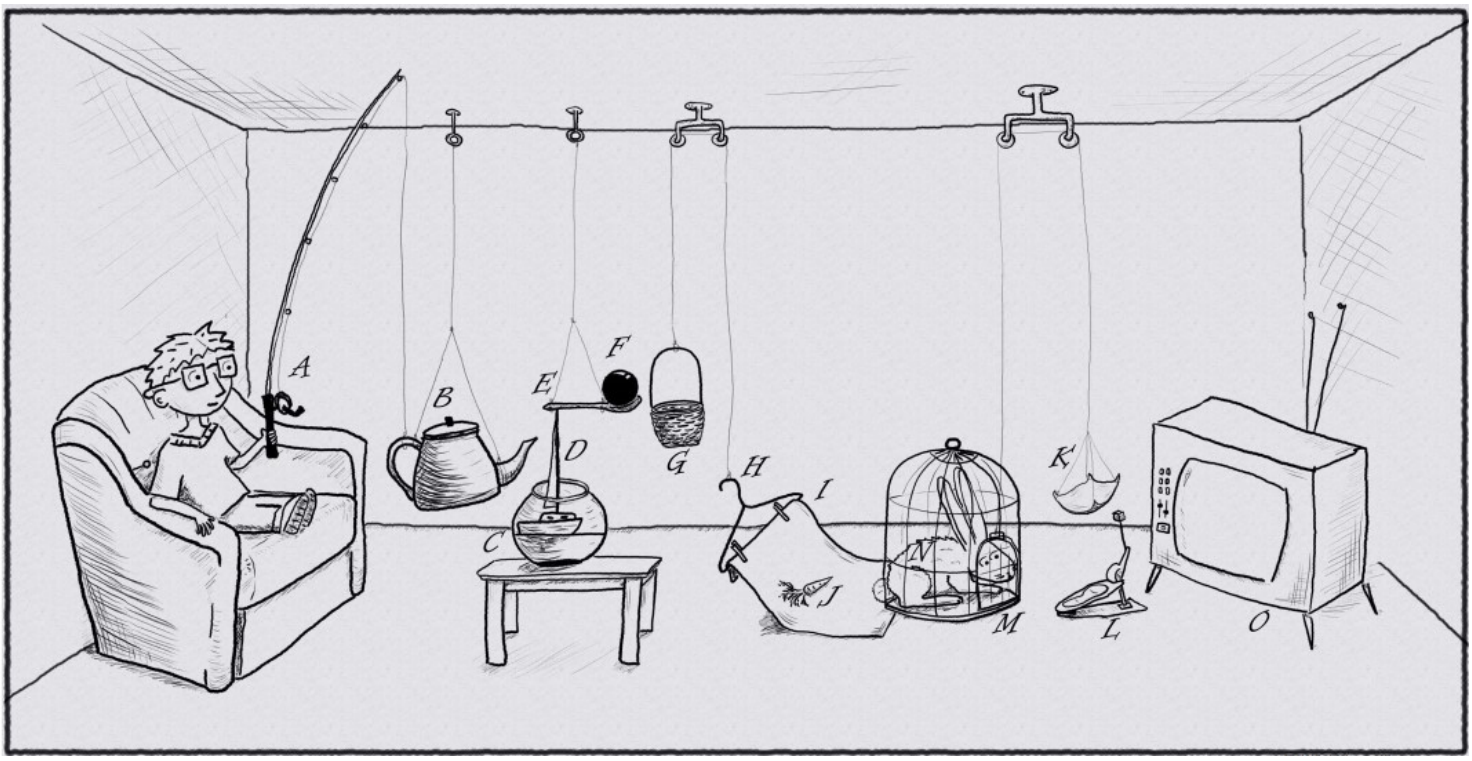


Can you spot where the tooth decay is?

How do our teeth wobble and fall?

SCIENCE ACTIVITIES AT HOME

1. Primary Science Teaching Trust: Picture for Talk



WHAT IS HAPPENING IN THIS PICTURE? CAN YOU EXPLAIN WHAT IS HAPPENING AT EACH OF THE LETTERS FROM A TO O?

What might go wrong at each point?

What are the consequences of something going wrong?

A machine is (a piece of equipment with moving parts that use power to do work) and humans invent them to make work easier – can you think of any examples?

How many different machines are in the contraption in the picture?

Does this contraption make work easier for the person? Why/why not?

The picture can be used for a more focussed discussion about forces, levers and pulleys

How many examples of levers and pulleys can you find in the picture?

What can you say about the forces at points D and G?

Visit these websites to find a range of science activities that you can do as a family at home.

2. Primary Science Teaching Trust: Science Fun at Home

https://pstt.org.uk/resources/curriculum-materials/Science-Fun-at-Home

3. Natural History Museum:

https://www.nhm.ac.uk/take-part/try-this-at-home.html

4. STEM Learning:

https://www.stem.org.uk/home-learning/family-activities